

Rank behind rank, the various aquatic and marsh plants advance into every shallow, building it up to the common level over which the floods pass, adding new sediment, instead of carrying away that already accumulated. In this way the land is slowly extending itself, confining the river more and more to its proper channel; but this process cannot materially alter the character of the valley, unless aided by some convulsion of nature.

Much yet remains to be done on the Lower Amazonas, in filling in the details of this imperfect sketch, which will, I trust, be found to be accurate in the main, and which will serve to show how interesting the region is in itself, and in its relation to the rest of the Continent. Of the Upper Amazonas or Marañon region, enough is already known to show its surpassing interest and importance. Between the two, the middle or Solimões region, is an almost perfect blank, in which future explorers will meet with difficulties, even surpassing those presented by the other regions, but will, by well directed efforts, reap results commensurate with the hardship of the undertaking.

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*Stated Meeting, January 17, 1879.*

Present, 11 members.

Vice-President, Mr. FRALEY, in the Chair.

A letter of acknowledgment was received from the Natural History Society, Emden (100; List).

Letters of envoy were received from the French Minister of Public Instruction; and the Meteorological Office, London, December, 1878.

A letter of thanks for correspondence was received from the Rev. Stephen D. Peet.

A letter respecting exchanges was received from Mr. G. W. Ranek, Curator of the Kentucky Historical Society.

Donations for the Library were received from the Adelaide Observatory; M. P. Volpicelli at Rome; the Geographical Society and *Revue Politique* at Paris; the Meteorological Office, and Register, and *London Nature*; the Boston Natural History Society; *American Journal of Arts and Sciences*; *Library Journal* in New York; the Franklin Institute, College of Pharmacy, *Journal of the Medical Sciences*, and *Medical News* in Philadelphia; the *American Journal*

of Mathematics at Baltimore; Mr. S. H. Scudder; the Botanical Gazette; Mr. G. W. Ranck; and the Ministerio de Fomento in Mexico.

The American Journal of Mathematics of Baltimore was ordered to be placed on the list of correspondents to receive the Proceedings.

The death of the Rev. E. R. Beadle, D.D., LL.D., in Philadelphia, January 6, 1879, aged 66, was announced by the Secretary; and, on motion, Dr. Robt. E. Rogers, was appointed to read an obituary notice of the deceased.

The death of Mr. Morton McMichael, in Philadelphia, January 6, 1879, aged 71, was announced by Mr. Price; and on motion Mr. Fraley was appointed to read an obituary notice of the deceased.

A letter from Mr. P. W. Sheaffer, dated Pottsville, Pa., January 6, 1879, reported the result of tests of the visibility of stars in daylight from various depths of the 1600 feet shaft of the Philadelphia and Reading Railroad Company, near that borough:

POTTSVILLE, Pa., January 6, 1878.

DEAR SIR:—The question of seeing stars from deep wells, &c., being unsettled, I requested Mr. Edward Herbert, an intelligent boss miner, now in charge of the deep shaft of the Philadelphia and Reading Coal and Iron Company, near this borough, to test the question so far as he could find the opportunity to do so in his frequent ascents and descents of the Pottsville shaft, especially, which is some 1600 feet deep.

He reports as follows:

“ST. CLAIR, December 20, 1878.

“Myself and one of the workmen have tried this afternoon at several distances in east shaft, if we could see any stars, but failed to see any. The sky was very clear and atmosphere favorable; the shaft is a down cast, and was entirely free from smoke or steam. I fear we will not be able to solve your problem in the affirmative.”

In reply to a further inquiry, as to the depth from which observations were made, he replies as follows:

“ST. CLAIR, January 4, 1879.

“We have tested it at different depths, from 100 feet down to 700 and 800 feet, when the sky has been clear, but have so far failed to see any stars.

After we got down 600 feet the atmosphere is not quite so clear as it is nearer to the surface."

If your society can suggest further tests I will be glad to make them.  
I am very respectfully your obedient servant,

P. W. SHEAFER.

TO THE AMERICAN PHILOSOPHICAL SOCIETY,  
Fifth Street, near Chestnut, Phila.

Mr. B. Britton exhibited a small and useful specimen-rock crusher for laboratory use, with mortar and pestle, and described its value in the saving of time and labor.

Mr. Lesley exhibited a proof sheet of Mr. J. F. Carl's colored map of the preglacial water basins of North-western Pennsylvania, prepared for the illustration of his forthcoming third Report of Progress in the Survey of the Oil Regions.

Mr. Marks exhibited and explained a new link-work, which he had invented for the use of his students in describing arcs of epicycloid curves, and which can be made practically useful for plotting the outlines of the teeth of wheels. He also exhibited specimens of other Peaucellier cell forms.

On motion, Mr. Lesley was elected Librarian for the ensuing year.

The Standing Committees for 1879 were then appointed, as follows:

*Finance.*

Mr. Frederick Fraley,  
Mr. E. K. Price,  
Mr. Benjamin V. Marsh.

*Publication.*

Dr. John L. LeConte,  
Dr. Daniel M. Brinton,  
Dr. McQuillen,  
Prof. E. Thompson,  
Dr. C. M. Cresson.

*Hall.*

Gen. Hector Tyndale,  
Mr. S. W. Roberts,  
Mr. J. Sergeant Price.

*Library.*

Mr. E. K. Price,  
Rev. Dr. Krauth,  
Dr. G. H. Horn,  
Dr. Kinderdine,  
Prof. Houston.

Pending nominations Nos. 871, 872, 873 were read, and Nos. 871 and 873 balloted for. No. 872 was postponed on account of the absence of its nominators.

The reading of the list of members was postponed.

On a scrutiny of the ballot boxes by the presiding officer, the following were declared duly elected members of the Society :

Charles B. Dudley, Ph. D., Altoona, Pa.

Philip H. Law, of Philadelphia.

And the meeting was adjourned.

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*Stated Meeting, February 7, 1879.*

Present, 19 members.

Vice-President, Mr. FRALEY, in the Chair.

Letters accepting membership were received from Dr. Charles Benjamin Dudley, dated Altoona, January 20, 1879; and from Mr. Philip Howard Law, dated Philadelphia, January 20, 1879.

Letters of envoy were received from the Batavian Society of Sciences, Batavia, dated December 15, 1874, August 20,